

# Roadway Volumes (ADT)

<u>Type of Road</u>	<u>Suburban</u>	<u>Alternative</u>
Arterials/Avenues	20 - 50,000	10 - 27,000
Lane Requirements	25% - 6L	80% - 4L
	75% - 4L	20% - 2L
Collectors/Connectors	4 - 5,000	1 - 4,000
% Over 2,000 ADT	67%	5%

# St. Andrews

## Neighborhood Centers & Residential Areas

- Walkable, residential neighborhoods of varying densities.
- Retail (where viable) or important community use at center.
- Direct connections from the neighborhoods to adjacent mixed-use activity nodes





# Neighborhood Center

Neighborhood Activity Center – Civic & Residential Focus



# Neighborhood Center

Neighborhood Activity Center – Civic & Residential Focus

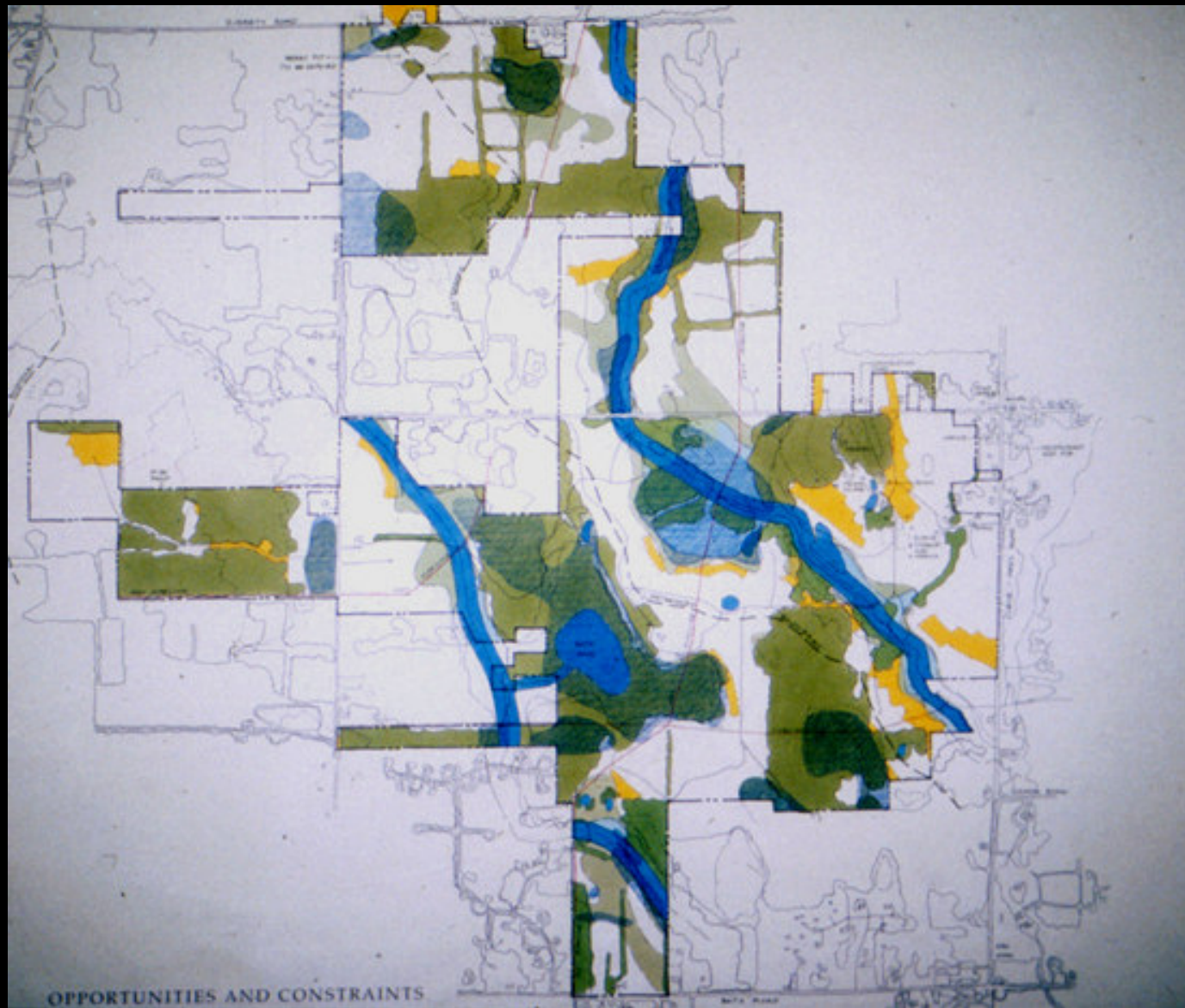




# Neighborhood Residential Areas

## Diverse Housing

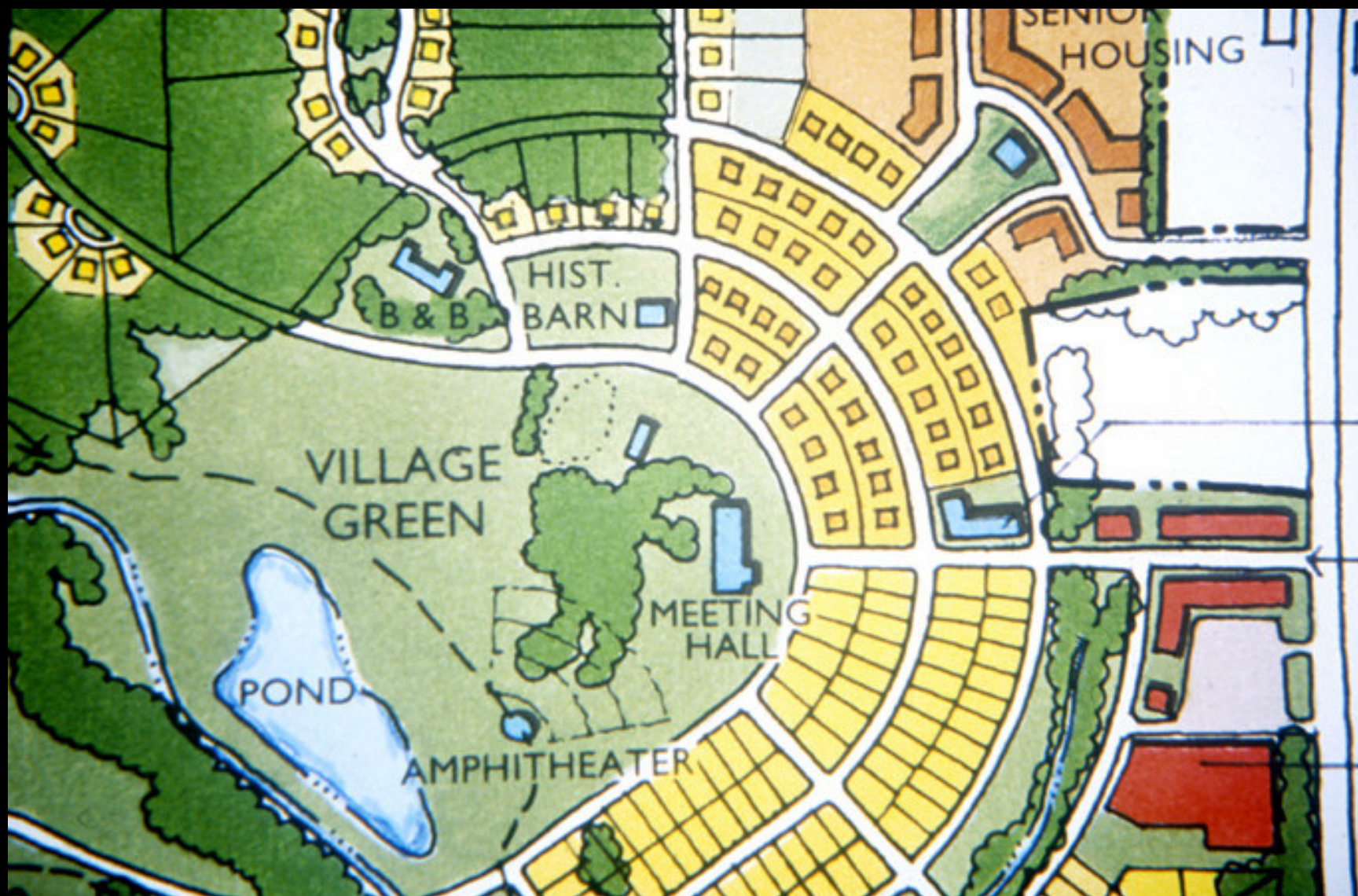












# Measuring up to the challenge

## Modeling the Impacts of Development Alternatives

- How well do Master Plans measure up to the challenges and goals of Fresno and the Central Valley?
- How do Master Plan Alternatives compare to business as usual development?



# Potential Evaluation Criteria

## Modeling the Impacts of Development Alternatives

### Land Use

- Land Consumption
- Housing Mix
- Ag. Land Impacts

### Environmental & Sustainability

- Air Quality/Emissions
- Energy Use
- Green House Emissions

### Transportation

- Vehicles Miles Traveled
- Congestion
- Travel Mode Share

### Fiscal Impacts

- Local Roads
- Utilities

# Links Between Urban Form and Public Health





# Pedestrians Are An Endangered Species

## 25th MOONWALK ANNIVERSARY

1969



1994



# Humans As An Afterthought

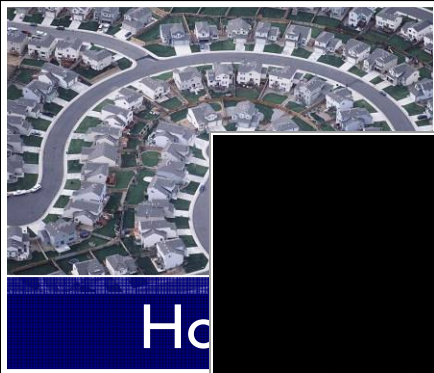
## Pedestrians in the Conventional Suburban Environment





# Everything is a Drive Away

## Soccer Moms and Dads



Suburban mothers spend  
17 full days a year  
behind the wheel, more than the  
average parent spends dressing,  
bathing and feeding a child.





...and the effects are dramatic



San Ramon

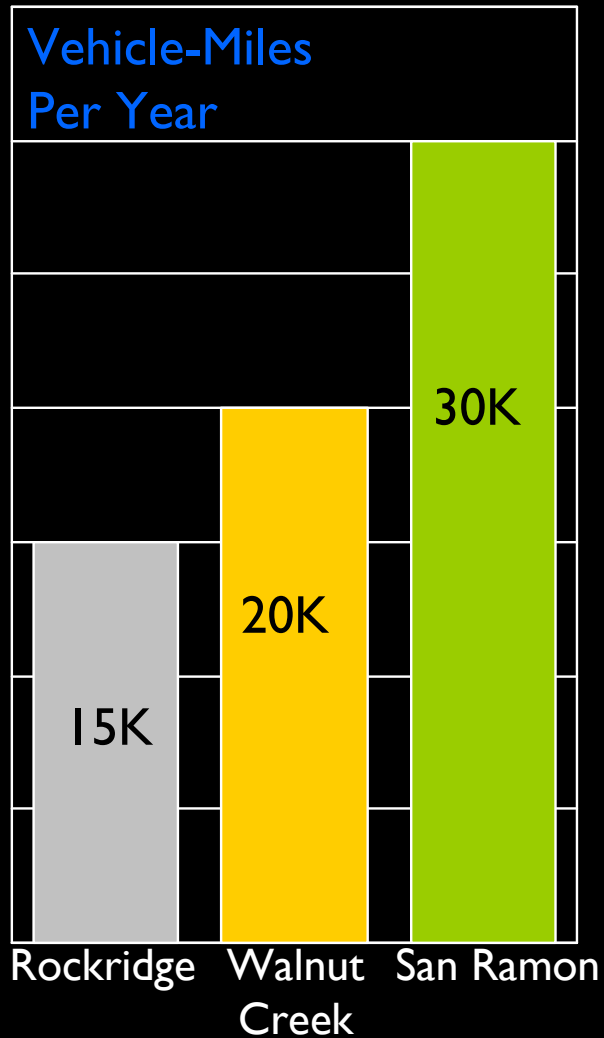


Rockridge District - Oakland

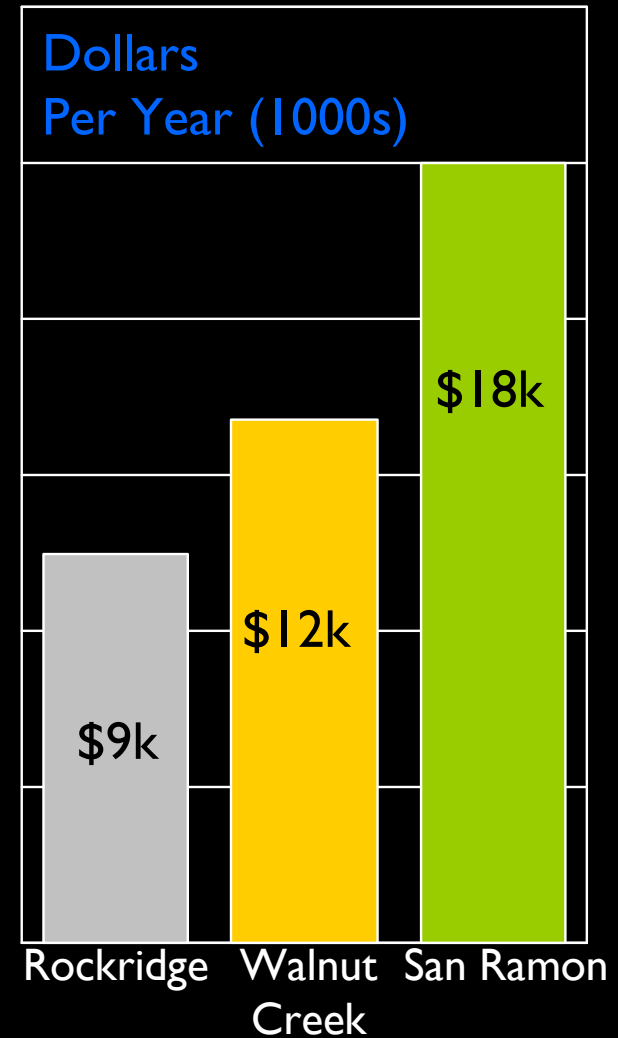
**CALTHORPE ASSOCIATES**  
URBAN DESIGNERS, PLANNERS, ARCHITECTS



## Auto Use (Household Average)



## Auto-Related Costs (Household Average)



# And It's Costing Us

## Cost of Sprawl vs. Compact Growth



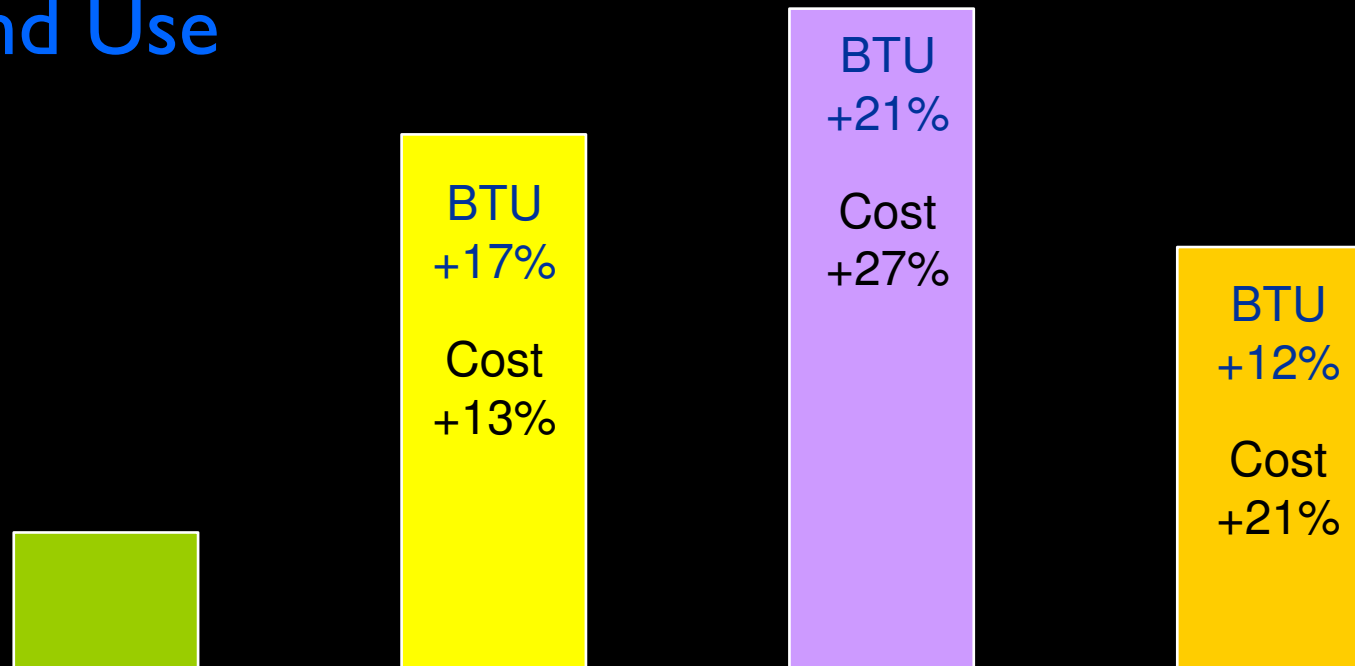
Roads	25% less
Utilities	15% less
Schools	5% less

Source: *Economic and Fiscal Impacts of Alternative Land Use Patterns*, by Robert Burchell, Rutgers University



# Energy Savings

## Link to Land Use

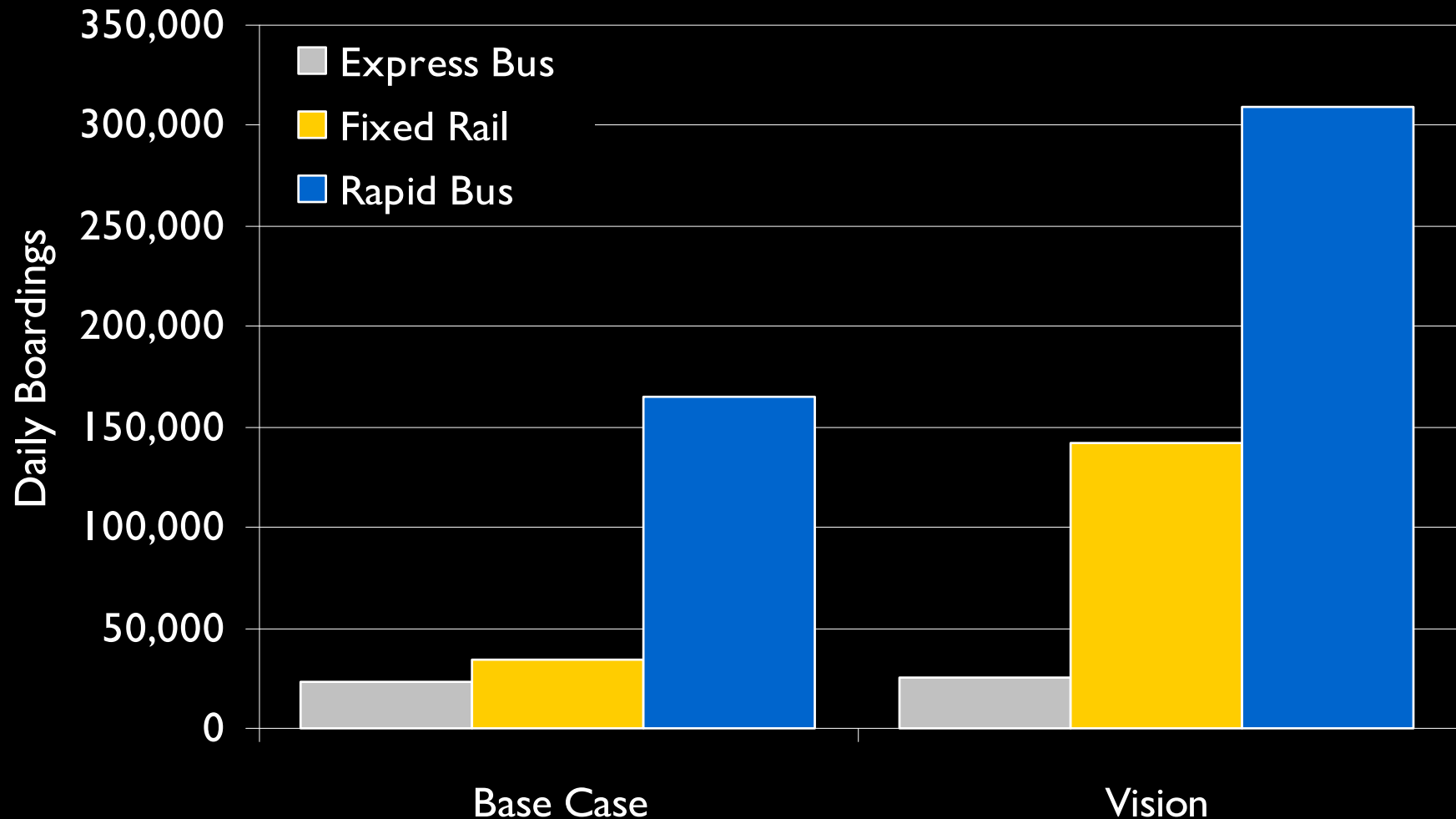


	City		Town		Suburbs		Rural	
Per Household	BTU (Millions)	Dollars	BTU (Millions)	Dollars	BTU (Millions)	Dollars	BTU (Millions)	Dollars
<b>TOTAL*</b>	84.7	\$1,347	98.4	\$1,516	102.7	\$1,704	94.5	\$1,628
Change from City	-	-	+17%	+13%	+21%	+27%	+12%	+21%

Source: U.S. Energy Information Administration, 2001 Residential Energy Consumption Survey

# Transit Ridership

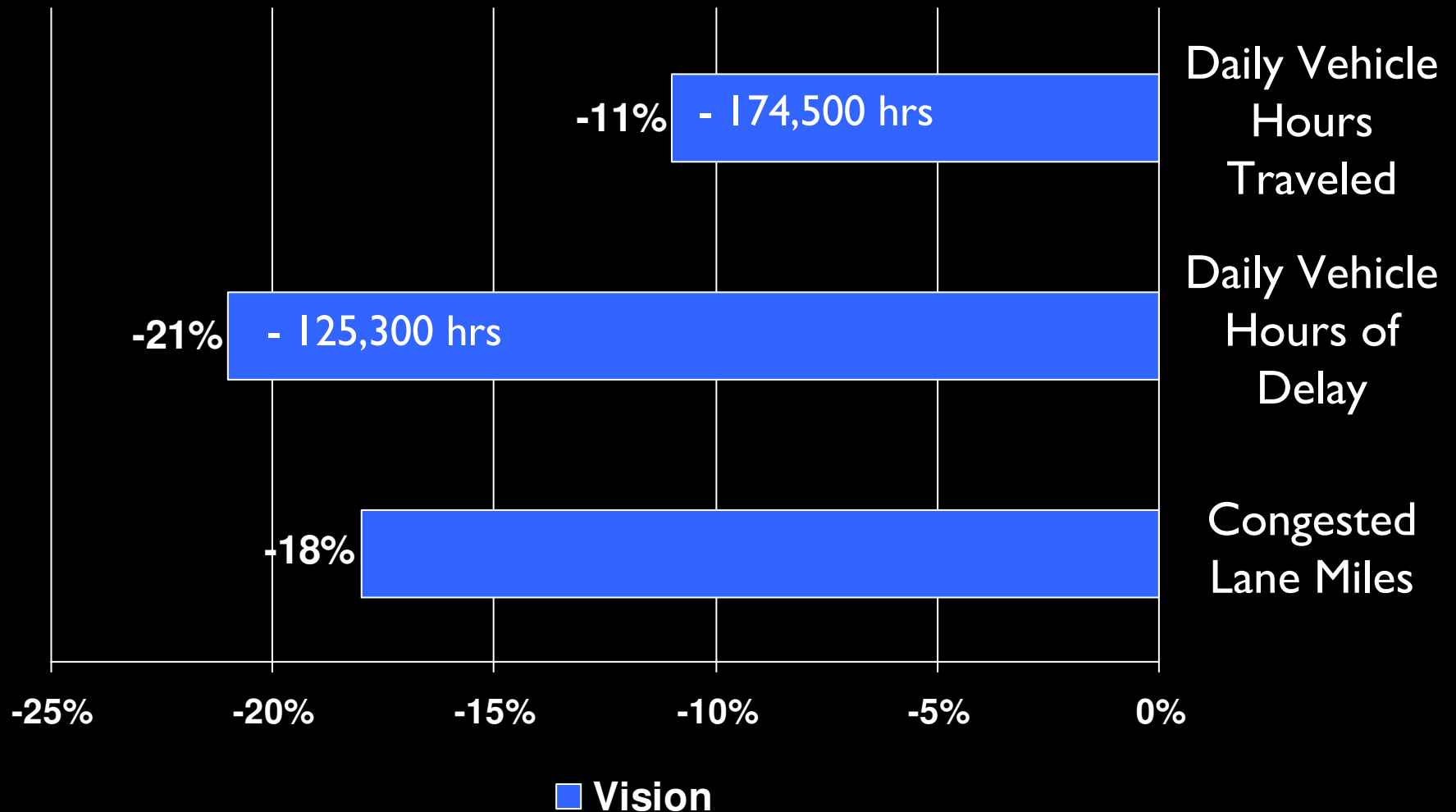
Varies Significantly with Land Use Coordination





# Auto Use

## Percent Change from Base Case Scenario



# Impacts of Reduced Vehicle Use

Change from Base Case Scenario

Reduction in Annual Vehicle Miles Traveled	700,000,000
Reduction in Annual Fuel Consumption (gallons)	40,000,000
Reduction in <u>Annual Air Pollution</u> * (tons)	4,000

\* Emissions from mobile sources only

# Savings from Reduced Vehicle Use

## Change from Base Case Scenario

	Annual Regional Savings	Annual Household Savings
Time Costs*	\$463 million	\$1,300
Fuel Costs*	(2004, \$1.60/g) \$71 million (\$3.00/g) \$133 million (\$4.00/g) \$177 million	\$200 \$370 \$490
Total Savings	(2004, \$1.60/g) \$534 million (\$3.00/g) \$596 million (\$4.00/g) \$640 million	\$1,500 \$1,670 \$1,790

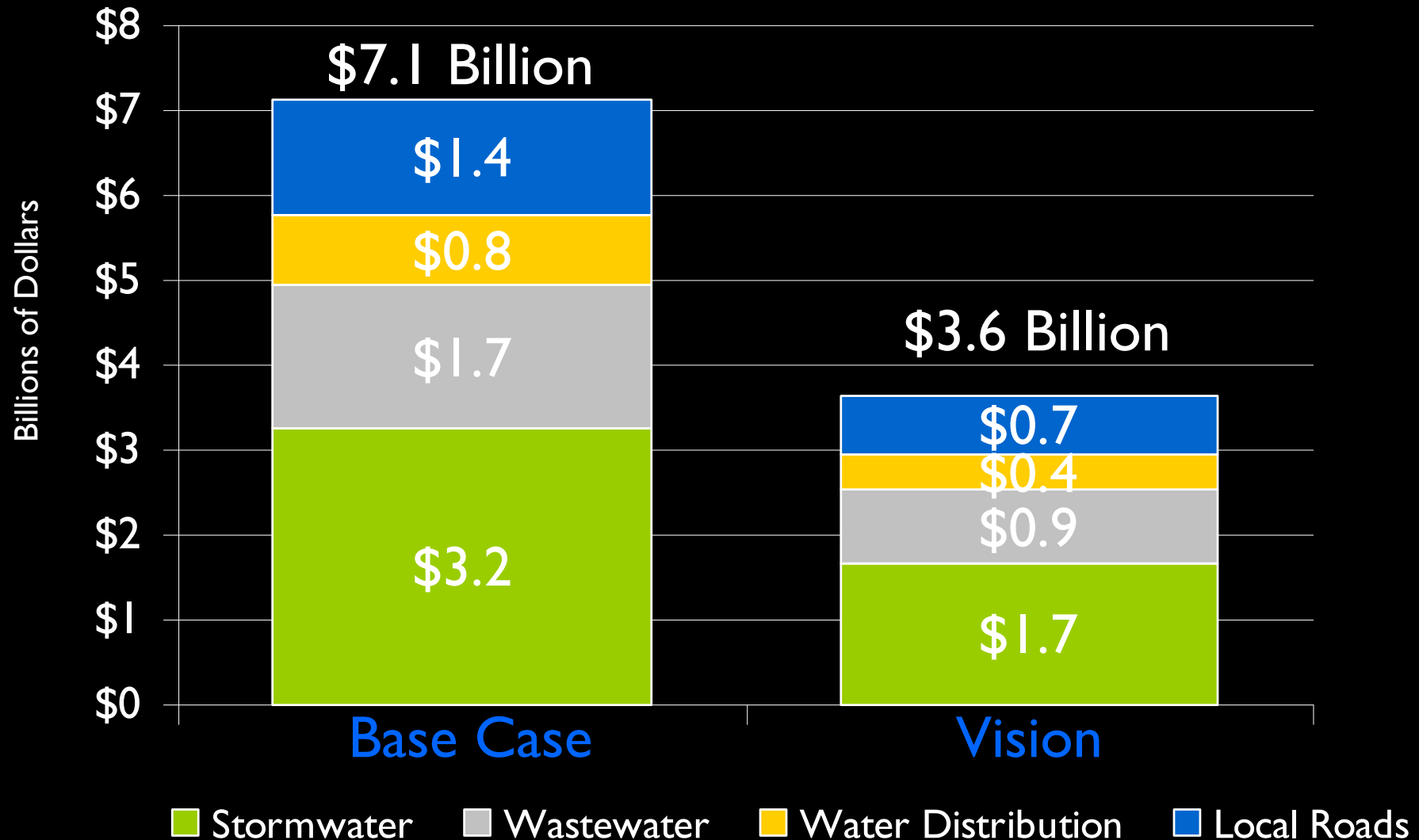
\* Costs Source: Texas Transportation Institute 2003 Mobility Study

(Constant 2004 Dollars)

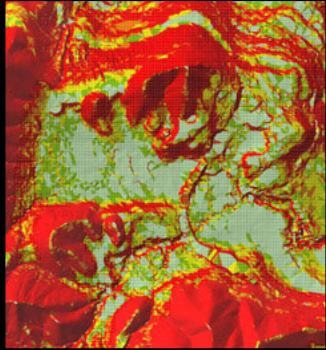


# Reduced Infrastructure Cost

## Regional and Local Services

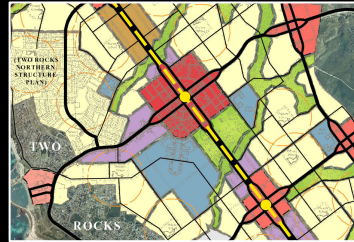


# The Path to a Specific Plan



Mapping & Constraints Analysis

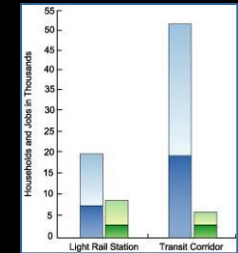
Workshop #1



Development Studies & Place Types

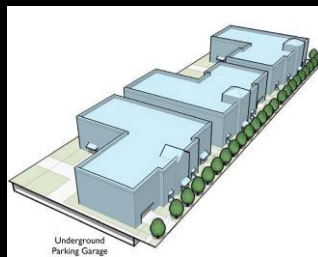


Master Plan Alternatives & Modeling

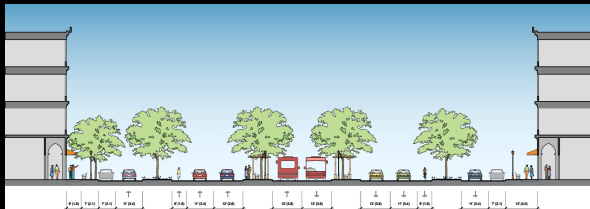


Workshop #3

EIR and Final SP



Underground Parking Garage



Draft Specific Plan



SEGA Master Plan



Workshop #2